

Challenges, Opportunities & New Directions

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Coverage

- Challenges and Opportunities Along The Road Ahead
 - Tom Cooley
- Electronic Initiatives
 - Stacie Boyd



Challenges & Opportunities Along the Road Ahead

- Backdrop The overall "environment" includes:
 - The political landscape
 - Constrained budgets
 - "War time" environment
 - Disaster relief funding
 - Deficit reduction
 - Economic uncertainty
 - Trade deficit

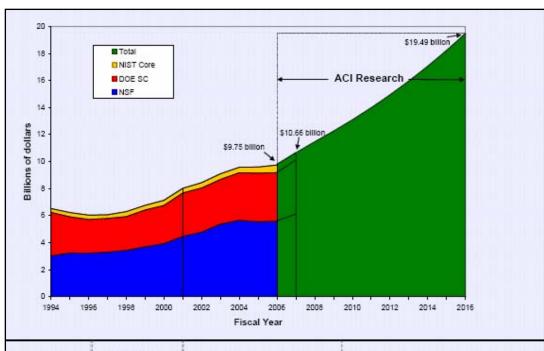


Challenges & Opportunities Along the Road Ahead

- There is some good news for R&D
- The American Competitiveness Initiative



American Competitiveness Initiative Research, FY 2007 – FY 2016



	FY 2006 Funding (billions of dollars)	ACI Research FY 2007		ACI Research FY 2016	
		(billions of dollars)	% increase	(billions of dollars)	% increase over FY06
NSF	\$5.58	\$6.02	7.8	\$11.16 ¹	100.0
DoE SC	\$3.60	\$4.10	14.0	\$7.19 ¹	100.0
NIST Core ²	\$0.57 ³	\$0.54	-5.8 ⁴	\$1.14 ¹	100.0
TOTAL	\$9.75	\$10.66	9.3	\$19.49	100.0

ACI doubles total research fund; individual agency allocations remain to be determined.

NIST core consists of NIST lab research and construction accounts.

³ The 2006 enacted level for NIST core includes \$137 million in earmarks.

⁴Represents a 24 percent increase after accounting for earmarks.



American Competitiveness Initiative

Goals:

- Boost physical sciences
- More attention to math and science education in public schools
- Focus on applied energy research
- Make Research and Experimentation Federal tax credit permanent

Limitations (as proposed in FY 2007):

- Flat lines NIH for next 5 years
- Freezes NASA's spending on earth and space sciences



American Competitiveness Initiative: The Haves

- Doubles over 10 years:
 - DOE Science Programs
 - NSF
 - NIST
- NOAA: +6% in FY 2008
- VA R&D: +7% in FY 2008
- USGS: +3% in FY 2008



American Competitiveness Initiative: The Have Nots (in FY 2008)

• NIH: +2%

• NASA: -1%

• EPA: -4%

USDA R&D: +1%

• DOT: -5%



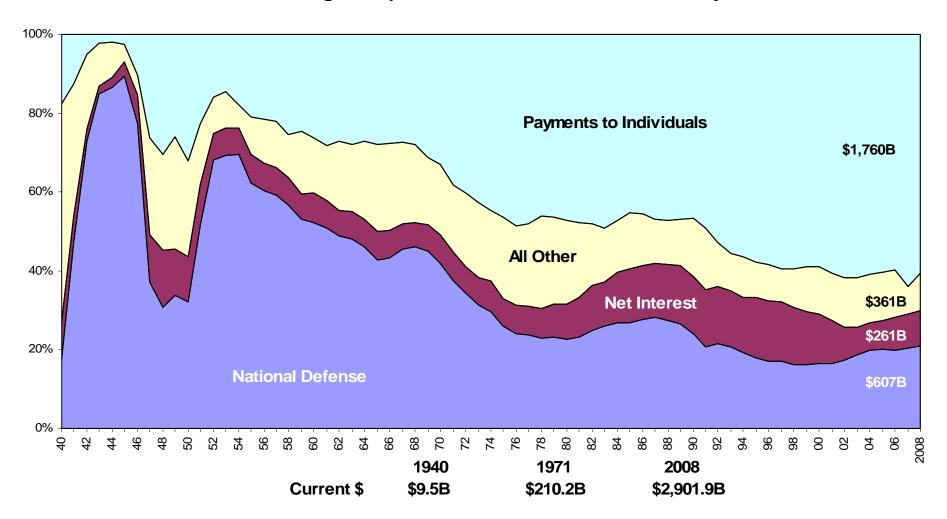


NSF's Key Congressional Players

- New Congress major shift of leadership
- House and Senate Budget Committees
- Authorization Committees
 - House Science Committee/Sub-committees
 - Senate Health, Education, Labor & Pensions Committee
 - Senate Commerce, Science & Transportation Committee
- Appropriations Committees
 - New staff all around



Percentage Composition of Federal Government Outlays





FY 2007 and 2008 R&D Budget **Highlights**

FY 2007

- DHS: 25.8 % under 2006
- Agriculture: 5.0 % under 2006
- Defense: 5.6 % over 2006
- NASA: 2.6 % over 2006
- NIH: 0.7 % over 2006
- Commerce:
 - NOAA: 14.4 % under 2006
 - NIST: Level with 2006
- USGS: 1.3 % under 2006
- EPA: 8.8 % under 2006

FY 2008

- DHS: 1.0 % under 2007
- Agriculture: 13.2% under 2007
- Defense: 1.3 % over 2006
- NASA: 7.0 % over 2007
- NIH: 0.9 % over 2007
- Commerce:
 - NOAA: 16.9 % over 2007
 - NIST: 23.9 % over 2007
- DOE Science: 0.8 % under 2006 DOE Science: 22.0 % over 2007
 - USGS: 1.2 % over 2007
 - EPA: 0.9 % under 2007

Data Source: Table 5-1 Federal Research and Development, FY 2008 Analytical Perspectives, p. 51 and OMB MAX database.



Budget Authority (Dollar amounts in millions)	2008 Proposed	Percent Change
Defense	78,862	1%
Health and Human Services	29,027	1%
NASA	12,428	7%
Energy	9,224	10%
National Science Foundation	4,880	15%
Agriculture/USDA	2,010	-13%
Veterans Affairs	822	0%
Commerce	1,088	18%
Homeland Security	1,068	-1%
Transportation	812	8%
Interior	621	-2%
Environmental Protection Agency	562	-1%
Other	1,251	2%
TOTAL	142,655	3%



Along the Road Ahead

- There are some continuing "challenges" for our community:
 - Policies and procedures at Federal agencies "all over the map"
 - Compliance looming large
 - NSF: Difficult to balance award size, duration and success rates
 - Audits continue to frustrate



Politics and Procedures: What are the Touch Points?

Several Reasons

- Congressional Intent (laws, regulations, authorizing language, etc.)
 - Example: Improper Payments Improvement Act of 2002
- Administration Practices or policies (OMB guidance, Administration's political platform, etc.)
 - Example: Nanotechnology Initiative
- Agency/Department Policy (grants policies, terms and conditions, operating guidance, etc.)
 - Example: NSF Cost sharing policy
- Community Drivers (NAS, FDP, COGR, AAU, NASULGC, professional societies, etc.)
 - Example: Success rates, award size and duration



Financial Statement Audits

- Ours and Yours
 - Issue: Recording expenditures properly
- Federal Government's Area of Improvements
 - More scrutiny of FCTR's will require more documentation
 - Heightened scrutiny of A-133 reports
 - Site visits to high-risk awardees
- Your Area of Improvements
 - Better accounting system; segregation of costs
 - Better documentation
 - Clean A-133 audits (OIG reviews/recommendations)



Research Business Models (RBM) Subcommittee, Committee on Science, National Science and Technology Council

- Federal cross-agency coordination to address important policy implications
 - Arising from the changing nature of interdisciplinary and collaborative research
 - Examine the effects of these changes on business models for the conduct of scientific research sponsored by the Federal government.
- Outreach with the FDP, COGR, SRA, NCURA, and others continues



RBM: Current Activities

- Multiple Pls
- Research Terms & Conditions
- Interim Progress Reports
- Conflict of Interest Policy
- Voluntary Institutional Compliance Program Guidance
- Enhanced A-133 compliance supplement on subrecipient monitoring



RBM: Results of January 2007 Retreat

- RBM should continue to exist the mission is still important
- Focus for 2007 finish what is on our plate including logical follow-on activities
- Focus for 2007 "engage customers"
 - Publicize what we have done with RBM
 - Solicit customer input on the value of what we have done, their concerns, and what is most important
- Develop a pipeline of issues/initiatives to prepare for the next administration



RBM Goals

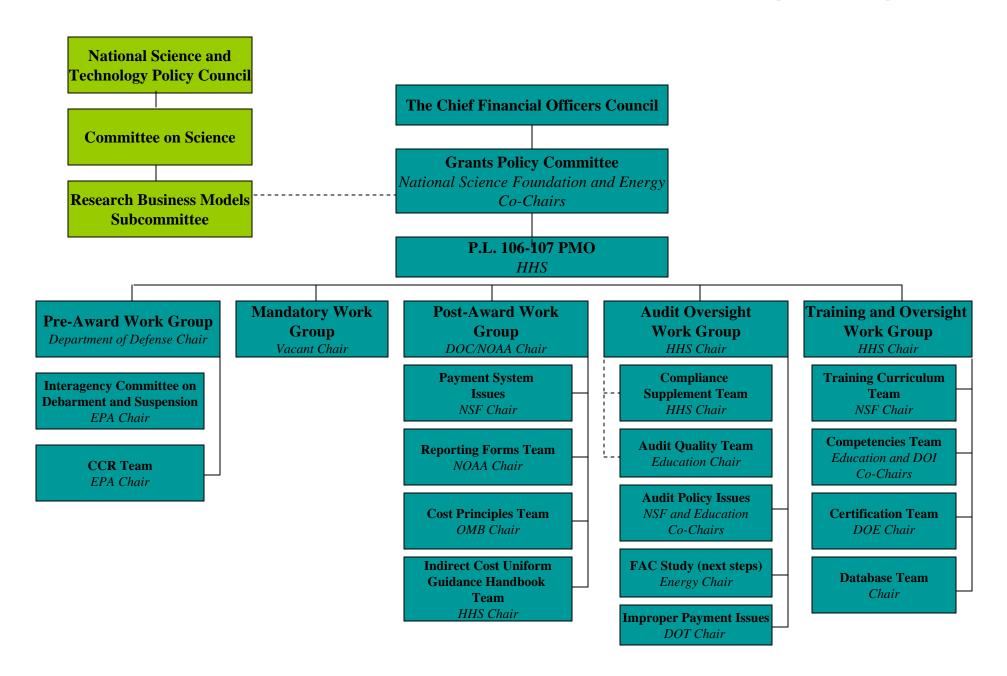
- Reduce the burden where it makes sense to do so with common best practices
- Provide forum for communication and exchanging ideas across agencies
- Broaden and deepen work projects
- Leverage limited dollars for both Federal agencies and research institutions
- Promote long-term research viability (includes training)



Outreach and Communication

- Likely to have additional regional public meetings
 - Possibly in conjunction with the Grants Policy Committee and Grants.gov
- Will continue outreach through FDP, SRA, NCURA, COGR, etc.
- See the RBM web site for the latest news <u>http://rbm.nih.gov/</u>

The Federal Grant Streamlining Program



Grants Policy Committee: Tasks, Schedule and Milestones (as of @3/31/2006)* [Dates shown are targets for planning purposes and they are subject to change due to unplanned events.] 1st Fed. Reg Notice of Proposal Next GPC Milestone Гask Status Post-Award Work Group: FY 2008 Cost Principles to 2 CFR FY 2008 FY 2008 Federal Financial Reports 2 Q FY 2006 3 Q FY 2006 2Q FY 2007 Indirect Cost Uniform Gridelines Handbook 4 Q FY 2006 3 Q FY 2006 1 Q FY 2007 None; approved by GPC, March 2006 At OMB for review Invention Reports 2Q FY 2007 Payment Systems Recommendation 3 Q 2006 3 Q FY 2006 NA Research Performance Reports 2Q FY 2007 None: approved by GPC, December 2005! At OMB for review Non-Research Project Reports None; approved by GPC, March 2006 At OMB for review 2Q FY 2007 Real Property Reports None; approved by GPC, December 2005! At OMB for review 2Q FY 2007 Tangible Personal Property Reports None; approved by GPC, March 2006 At OMB for review 2Q FY 2007 Pre-Award Work Group: Standard Award Content and Format (2 CFR, gov't-wide) In Preparation 4 O FY 2006 2 Q FY 2007 nterim Award Terms and Conditions (Research Only) ** 4 Q FY 2006 In preparation 2 Q FY 2007 Other Pre-Award Portions of 2 CFR (A-89, CCR, late applications, etc.) TBD TRD In Preparation Certifications & Assurances 2 Q FY 2007 2 Q FY 2007 4 Q FY 2007 Suspension & Debarment *** 3 Q FY 2006 3 Q FY 2006 Aug-05 Drug-free and anti-lobbying OMB guidance for 2 CFR TBD Future Action TRD Audit Work Group Compliance Supplement **** 3 Q FY 2007 3 Q FY 2007 NA. Katrina-related Audit Questions 3 Q FY 2006 3 Q FY 2006 NA 3 Q FY 2007 In Preparation NA Quality Control Review of the A-133 Audits Products, such as from the Training and Oversight Work Group, are not included here no they do not affect the public but rather deal with training of Federal staff to strengthen the way they manage grants in this new environment. * In collaboration with the Research Business Models Subcrite of the COS/NSTC *** Handled by the ISDC, in association with the Pre-Award Work Group. **** And annually thereafter.



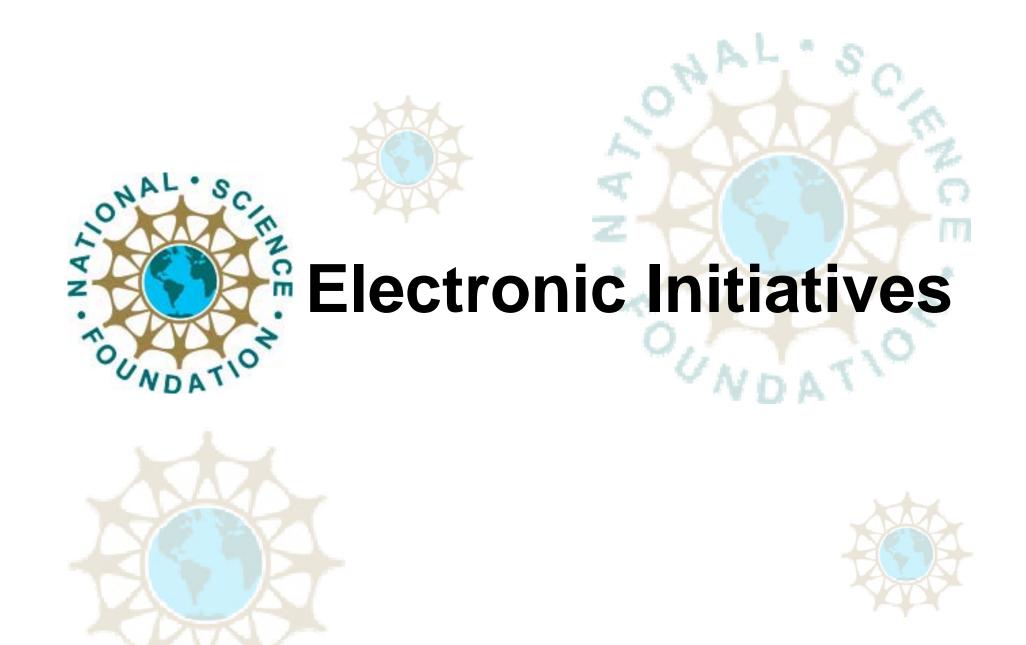
Grants Policy Committee

- Involving Stakeholders
 - Stakeholder recently held on March 8, 2007
 - Was webcast from USDA
 - Purpose: Feds "listen" to customer concerns and recommendations and then prioritize and get on with it
 - Notably 6 new forms:
 - Inventions
 - Real Property
 - Tangible Property
 - Research Progress Report
 - Federal Financial Report
 - Performance Progress Report
 - Still to come: Terms & Conditions for 2CFR



Federal Funding Accountability & Transparency Act (FFATA)

- Task Force formed (Nov. 2006 led by OMB)
 - Committee structure in place and operating
 - Contracts
 - Grants
 - Loans
 - IT
- FederalSpending.gov launched (Feb. 2007)
- Data elements defined
- Impact: Place of performance
- Next Step: Pilot grantee and sub-awardee data





What's the Latest On?

- Grants.gov
- Grants Management Line of Business (GMLoB)
- Research.gov



Background

Grants.gov

- Government wide Policy and Implementation Governing Structures for e-Grants Initiatives
- Grants.gov's Purpose and Goals
- Current and Future Status
- How NSF has Implemented Grants.gov

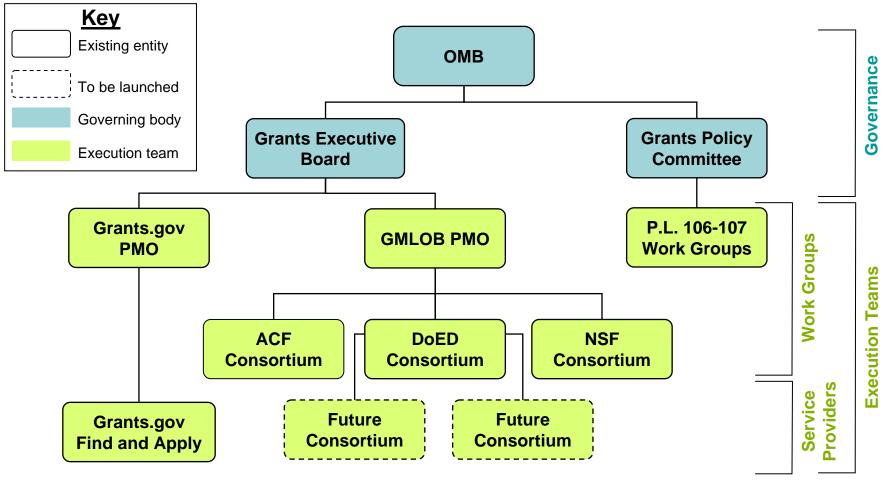


Background (Cont.)

- Grants Management Line of Business (GMLOB)
 - What is the Grants Management Line of Business?
 - GMLOB Purpose and Goals
 - Current and Future Status
 - NSF's Diverse Roles in the GMLOB: Leading and Implementing



Organizational Structure





What is Grants.gov?

- A single source for finding grant opportunities
- A standardized manner of locating and learning more about funding opportunities
- A single, secure and reliable source for applying for Federal grants online
- A simplified grant application process with reduction of paperwork
- A unified interface for all agencies to announce their grant opportunities, and for all grant applicants to find and apply for those opportunities



Grants.gov Current Status and Next Steps

- All 26 grant-making agencies are required to post all discretionary grant programs in the Grants.gov Find
- OMB has directed agencies to post in Grants.gov Apply:
 - 75% of their funding opportunities in FY 2006;
 - 100% of their funding opportunities in FY 2007.



NSF Implementation in 2007

- Those programs designated required in 06 will remain required in 07
- Unless otherwise specified, optional submission for the vast majority of NSF programs
- Will not be used until a Grants.gov solution has been developed for:
 - Separately submitted collaborative proposals
 - Fellowship programs that require submission of reference letters





Required to be submitted through Grants.gov in 2007

- Antarctic Artists and Writers (OPP)
- Scientific Computing Research Environments for the Mathematical Sciences (MPS)
- Living Stock Collections (BIO)
- Advanced Learning Technologies (CISE)
- CEDAR, GEM, and SHINE Postdoctoral Research (GEO)
- Research in Disability Education (EHR)
- Infrastructure Materials Applications and Structural Mechanics (ENG)
- Geography and Regional Science (SBE)



What is GMLOB?

- A government-wide solution to support end-to-end grants management activities that promote citizen access, customer service, and agency financial and technical stewardship.
- System consolidation
- Interoperability
 - Streamlined processes
 - Standardized nomenclature
 - Common interface touchpoints



Why GMLOB?

- Transparency and efficiency in the grants decision making process
- Improved access to grants-related programmatic and financial information
- Enhanced ability to report on award-related accomplishments
- Improved post award monitoring and oversight



 Grants management community will process grants in a decentralized way using common business processes supported by shared technical support services.



Current Status

Department of Education (ED)

- ED's core competency is administering and managing thousands of grants that provide educational and vocational opportunities for all citizens.
- ED's approach is unique in that consortium members will have the opportunity to participate in the design of a new, full lifecycle, end-to-end grants management system from the ground up.
- ED's system will be built to work with a large volume of information and transactions suitable for larger grant-making agencies.



Current Status (Cont.)

- Department of Health and Human Services (HHS)
 Administration for Children and Families (ACF)
 - Seven agencies and over 80 grant programs already use HHS ACF's Center of Excellence (COE), including USDA FSIS, HHS HRSA, and Treasury CDFI.
 - HHS ACF's systems incorporate all 14 GMLOB grant award processes both for awarding agencies and recipients as well as extensive and flexible post-award reporting mechanisms.
 - HHS ACF's systems can manage all types of grants and cooperative agreements, including "earmarks" and noncompetitive projects.



Current Status (Cont.)

National Science Foundation (NSF)

- NSF will lead a research-oriented consortium based upon GMLoB goals and the business needs of both partnering agencies and the grantee community.
- NSF will offer the Research.gov web portal that leverages its experience with Grants.gov and the Research and Related (R&R) initiative to provide access to functionality that benefits the research community.
- Research.gov focuses on the needs of the grantees by providing them with greater access to the government, streamlined functionality, and flexibility to account for differing agency research missions.



Research.gov at NSF



Why NSF was Chosen as a Consortium Lead

- Focus on the research community
- Recognized for high standards by customers
- Leadership position in the grants community
- 12 years of experience and capabilities as shown by FastLane
- Unique operating model—menu of highvalue services for both Federal partners and the research community



















Research Community Benefits

- A single web portal for research institutions to:
 - Conduct grants business with Federal research agencies, and

Find information about agency policies and upcoming

events.

- Increased quality and scope of services for the research community.
- Services delivered on a modern technology platform.





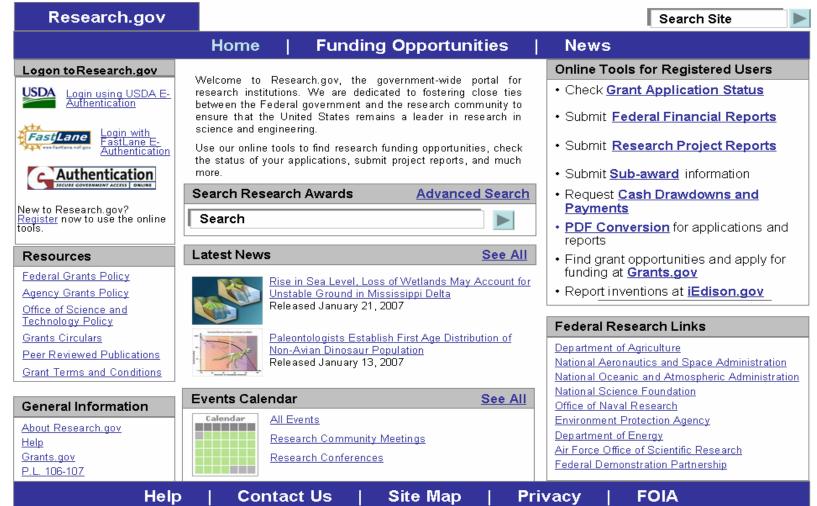
NSF GMLoB Consortium Guiding Principles

- The approach will be deliberate, modular, conservative, and research community focused.
- Research community must directly benefit from this initiative.
- Whatever we do, we are going to do it well.

- Low cost, high impact offerings that deliver value to grantees will be implemented first.
- The initiative must focus on improvement; cost avoidance, not just cost savings.



Research.gov Menu of Services



NSF Regional Grants Conference



Research.gov Portal Example

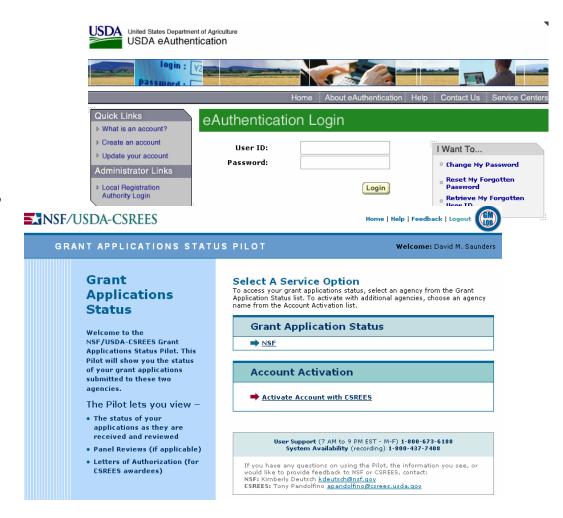




Grant Application Status

- On-going Partnership with USDA/CSREES
 - Pilot in August 2006 demonstrated joint grant application status
 - Gained both technical and business lessons learned



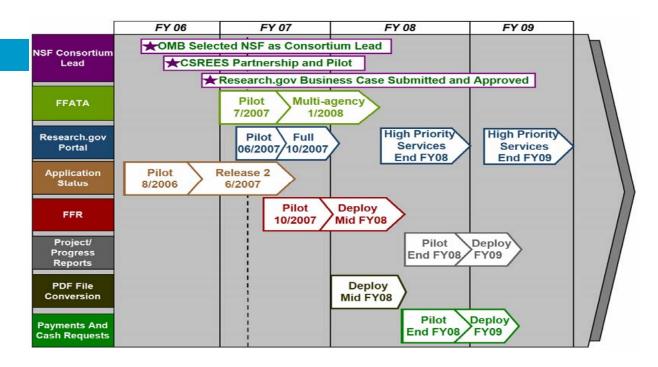




Moving Forward

TIMELINE

- OMB selected **NSF** as a GMLoB Consortium Lead
- Application **Status Pilot with USDA/CSREES** deployed
- Research.gov **Business Case** submitted and approved



- Pilot portal and
- Deploy portal and initial set of services initial set of services
 - Deploy additional services



NSF Regional Grants Conference



Why Research.gov is important

- Fulfills demand in the community for improved "e-services" tailored to research community
- Allows federal research agencies to sign up and offer services to their grantees using Research.gov tools
- Establishes a Federal Consortium delivering common IT services focused on the research grant community
- Continues NSF's leadership role in advancing electronic grants management initiatives

NSF Regional Grants Conference



Next Steps

- Continue successful grantor/grantee partnerships between NSF and the research community
- Expand this model to the government-wide initiative level
- Provide a common face and services to the research community through NSF's Consortium
- Increase quality and scope of service available to the research community via Research.gov



NSF Websites

National Science Board	http://www.nsf.gov/nsb/
Director/Deputy Director	http://www.nsf.gov/od/
Inspector General	http://www.nsf.gov/oig/
Office of Cyberinfrastructure	http://www.nsf.gov/dir/index.jsp?org=OCI
Office of International Science and Engineering	http://www.nsf.gov/div/index.jsp?div=OISE
Office of Equal Opportunity Programs	http://www.nsf.gov/od/oeo/index.jsp
Office of Legislative and Public Affairs	http://www.nsf.gov/od/lpa/index.jsp
Office of the General Counsel	http://www.nsf.gov/od/ogc/index.jsp
Office of Polar Programs	http://www.nsf.gov/dir/index.jsp?org=opp
Office of Integrative Activities	http://www.nsf.gov/od/oia/index.jsp
Biological Sciences	http://www.nsf.gov/dir/index.jsp?dir=BIO
Social, Behavioral & Economic Sciences	http://www.nsf.gov/dir/index.jsp?dir=SBE
Computer & Information Science & Engineering	http://www.nsf.gov/dir/index.jsp?dir=CISE
Education & Human Resources	http://www.nsf.gov/dir/index.jsp?dir=EHR
Engineering	http://www.nsf.gov/dir/index.jsp?dir=ENG
Budget, Finance & Award Management	http://www.nsf.gov/bfa/
Geosciences	http://www.nsf.gov/dir/index.jsp?dir=GEO
Information Resource Management	http://www.nsf.gov/oirm/
Mathematical & Physical Sciences	http://www.nsf.gov/dir/index.jsp?dir=MPS